

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040); and River Corridor Closure Project (RL-0041)

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B Laydown Yard



Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation and Decommissioning (M. B. Lackey);
- Reliability Projects (M. B. Lackey); and
- Waste Site Remediation (R. T. Wilde).

This section also includes PBS RL-0041, *Nuclear Facility D&D, River Corridor Closure Project*, until this work scope transitions to the River Corridor Contractor.

NOTE: Unless otherwise noted, all information contained herein is as of the end of June 2004.

Notable Accomplishments

Reliability Projects

Project L-327, Install BPA Provided Energy Efficient Pumps at 182B: This project designed and constructed a modern, energy efficient pumping system to replace the 50-year-old 100 Area Export Water Pumps and associated electrical system. Three energy-efficient 2,400 volt motors/pumps (one 250 hp and two 500 hp) were installed at the 182B Pumping Facility. An estimated savings of approximately 3,271,000 kWh per year has been calculated by the Bonneville Power Administration (BPA) with the implementation of this new pumping configuration. Overall construction completed June 30, 2004, with testing and startup planned for July 2004.



Warehousing Electric Floor Scrubbers Replacement:

This capital equipment purchase replaced the existing two Electric Floor Scrubbers in the 1163 and 2101M Warehouses for a Class B storage environment. The existing floor scrubbers were over 15 years old, are beyond their useful life, were routinely down for repairs, and are vital pieces of equipment to maintain the warehouses in compliance with regulatory codes and support the long term cleanup mission. The Floor Scrubbers were received on June 3, 2004.



Deactivation and Decommissioning



B Laydown Yard

233-S Demolition: Placement of the concrete cap/gravel cover was completed in June along with decontamination and release of all major equipment. Transfer of personnel to other D&D sub-projects is ahead of plan.

B Plant: Demolition commenced on July 6, 2004 for 22 structures. This activity follows approval of the Action Memorandum and associated work plans by Department of Energy/Environmental Protection Agency.

U Plant: The U Ancillary Engineering Evaluation/Cost Analysis (EE/CA) was submitted to DOE on June 22, 2004. Issues raised by RL after the document was submitted have been resolved. RL will transmit the EE/CA to the regulators for review prior to the public comment period.

Waste Site Remediation

U Plant Regional Closure: Preliminary design of surface barriers continues. Final comments from the Washington State Department of Ecology (Ecology) were incorporated into Revision 0 of the U Plant Sample Analysis Plan during the month of June. The plan is expected to be issued on July 30, 2004.

BC Cribs & Trenches: Planning was initiated for the plume delineation geophysical work for the BC Cribs and Trenches on June 18, 2004.

200 Area Remedial Investigation/Feasibility Study (RI/FS) Work: The remedial investigation report for the Uranium-Rich and General Process Waste Group (200-PW-2 and 200-PW-4 operable units) was submitted to RL on June 17, 2004 and subsequently transmitted to the regulators on June 24, 2004, completing TPA Milestone M-015-43B six days ahead of schedule. The Work Plan for the Unplanned Release Waste Group (operable unit 200-UR-1) was submitted to RL on June 7, 2004, and subsequently transmitted to the regulators on June 30, 2004, completing TPA Milestone M-013-00N on schedule. Also, on June 30, 2004, the spring ecological sampling was completed at Gable Mountain Pond, B Pond and B ditches.

FY 2004 FH Funds versus Forecast (\$000)

	FY 2004 Anticipated Funding w/Carryover	FY 2004 Fiscal Year Spend Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 73,119	\$ 65,737	\$ 7,382
RL-0041 Nuclear Facility D&D, River Corridor Closure	\$ 13,205	\$ 12,225	\$ 980
Total	\$ 86,324	\$ 77,962	\$ 8,362

Note: Infrastructure Reliability has work scope projected to carry over to FY 2005 (\$7.9M).

FY 2004 Schedule/Cost Performance (\$000)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-0040 Nuclear Facility D&D, Remainder of Hanford	57,459	41,193	47,808	-16,266	-28%	-6,615	-16%	85,521
RL-0041 Nuclear Facility D&D, River Corridor Closure	7,969	8,115	8,013	146	2%	102	1%	11,370
Total	65,428	49,309	55,821	-16,119	-33%	-6,512	-13%	96,891

Schedule Performance (-\$16,119K/-33%): The unfavorable schedule variance in the D&D Central Plateau sub-project is primarily due to deferral of work scope in response to FY 2004 funding reductions (-\$11,361K). This included 224-T Demolition, 224-B Demolition, and U Plant demolition-ready activities.

The unfavorable schedule variance is also attributable to Area Waste Site Cleanup (-\$5,640K) principally due to FY 2004 funding reductions requiring work scope deferral. This includes the A-8 waste site investigation, the Z-9 slant borehole, and the Step 2 investigation work for 200-PW-1; the test pit work and half of the boreholes planned for 200-MW-1; the pipeline engineering evaluation/cost analysis, test pit and borehole construction, pipeline design, crib stabilization, and the removal/disposal design work for the U Plant Regional Closure; and the design/confirmatory sampling and design for B/C Cribs waste sites. Also, extended regulator reviews have delayed the Proposed Plan and issuance of the record of decision (ROD). Additionally, the Z-9 drilling and dense nonaqueous-phase liquid investigation at Operable Unit 200-PW-1 got a late start, and incurred additional delays due to encountering significant radiological contamination below ground and the detection of high levels of carbon tetrachloride in the drill cuttings.

The favorable schedule variance in Reliability Projects is due to progress on FY 2003 carryover work scope (\$2,249K), Radio Frequency Migration and other FY 2004 projects (\$746K), offset by delays in new starts due to Continuing Resolution (-\$1,286K), and A-8 Substation conceptual design validation (-\$482K).

FY 2004 Schedule/Cost Performance, continued

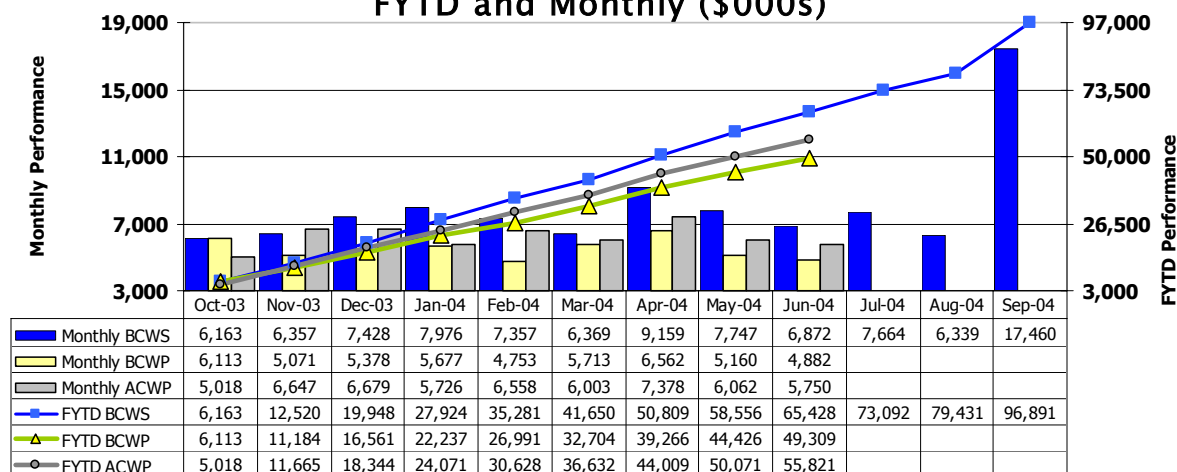
Cost Performance (-\$6,512K/-13%): The unfavorable cost variance for D&D Central Plateau is due to 233-S demolition (-\$7,806K) activities being more extensive, thus requiring retention of resources (personnel and equipment) for a longer period of time (approximately six months); this is somewhat offset by favorable variances in U Plant level-of-effort activities to be deferred in the baseline update, and 200 Area Surveillance and Maintenance (\$2,361K).

The unfavorable cost variance for Waste Site Cleanup (-\$2,425K) is due to Z-9 (200-PW-1) requiring more sampling/analysis, waste packaging, and transportation support than planned due to encountering higher levels of contamination than expected. Also, rate pass-backs from the underutilization of the 222-S Lab added over \$350K in unplanned costs to 200-PW-1. The 200-PW-2 Remedial Investigation work that was delayed from FY 2003 has had increased equipment replacement costs, and extra sample shipping and packaging costs due to the 216-A-10 field work. In addition, the incorporation of regulator comments and lessons learned from previous document reviews has required more document preparation support for the remedial investigation/feasibility study process, resulting in increased costs.

The favorable cost variance for Reliability Projects is due to cost efficiencies (\$771K) to be used to dismantle steam lines, characterize 748 Building, and Post Closure and Institutional Engineering Controls.

The favorable cost variance in Closure Services efficiencies (\$217K) is a result of efficiencies that may be offset with seasonal maintenance activities and fabrication services outsourcing and uncosted system upgrades.

Performance Analysis FYTD and Monthly (\$000s)



Milestones

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status Comments
CP01	TRP-03-227 M-015-41C	Submit 200-TW-1 & 200-TW-2 OU FS/Proposed Plan to EPA & Ecology	HQ	03/31/04	03/30/04		Completed ahead of schedule
CP01	TRP-03-230 M-015-39B	Submit 200-CS-1 Chemical Sewer Group RI Report	HQ	05/31/04	05/14/04		Completed ahead of schedule
CP01	TRP-03-224 M-013-00N	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	06/30/04	06/30/04		Completed on schedule
CP01	TRP-03-233 M-015-43B	Submit 200-PW-2 OU RI Report Including Past Practice Waste Sites	HQ	06/30/04	06/24/04		Completed ahead of schedule
CP01	TRP-03-309	233-S (PuConcentration Facility) and the 233-SA (Exhaust Filter Building) demolished to slab on grade.	RL	06/30/04	04/30/04		Completed ahead of schedule
CP01	TRP-03-501 M-092-11-T01	Complete Disposition Options for Hanford Site Nonradioactive NA	RL	09/28/04			On schedule
CP01	TRP-03-236 M-016-66	Initiate Interm. Des.& Auth for RA at 618-10&11	HQ	09/30/04			On schedule
CP01	TRP-03-242 M-015-40C	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group FS & Submit	HQ	10/31/04			On schedule
CP01	TRP-03-139 M-013-00O	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	12/31/04			On schedule
CP01	TRP-03-260 M-015-46A	200 Areaa Chemical Lab Waste OUs Remedial investigation Report.	HQ	10/31/05			On schedule
CP01	TRP-03-245 M-015-39C	Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed	HQ	11/30/05			On schedule
CP01	TRP-03-248 M-020-39	Submit 216 S-10 Pond and Ditch Closure Plan to Ecology	HQ	11/30/05			On schedule
CP01	TRP-03-254 M-015-43C	Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod	HQ	12/31/05			On schedule
CP01	TRP-03-257 M-020-33	Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc.	HQ	12/31/05			On schedule
CP01	TRP-03-263 M-015-44A	200-MW-1 OU Remedial Investigation Report	HQ	12/31/05			On schedule
CP01	TRP-03-266 M-015-46B	200 Area Chemical Laboratory Waste OUs Feasibility Study	HQ	09/30/06			On schedule
CP01	TRP-03-272	Remediate BC Crib and Trenches	RL	09/30/06			On schedule
CP01	TRP-03-303	U Plant Regional Closure (high risk waste sites)	RL	09/30/06			On Schedule
CP01	TRP-03-30C	U-Plant ready for demolition	CNTR	09/30/06			On schedule
CP01	TRP-03-312	224-B (Concentration Facility) demolished to slab on grade.	RL	09/30/06			The Baseline adjustment will delete this milestone
CP01	TRP-03-315	224-T (Transuranic Storage & Assay Facility) demolished to slab on grade.	RL	09/30/06			The Baseline adjustment will delete this milestone
RC06	TRP-04-901 M-92-15	Complete Removal and Transfer, and Initiate Storage of Phase II 300 Area SCW and Materials	EA	09/30/04	09/19/01		Completed ahead of schedule